Fig. 1

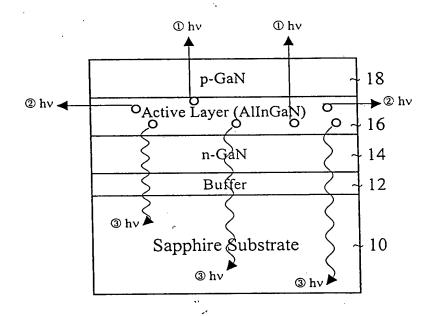


Fig. 2A

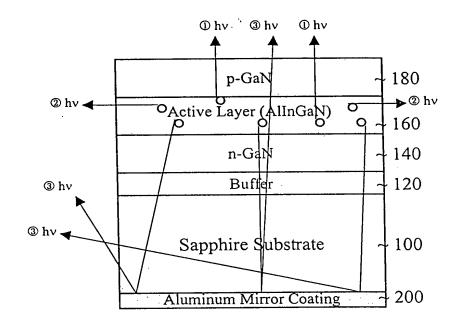


Fig. 2B

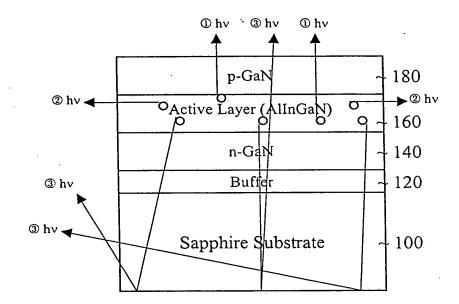


Fig. 3A

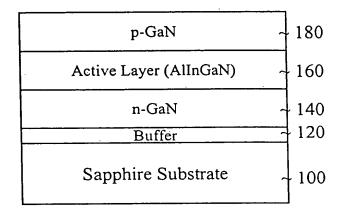


Fig. 3B

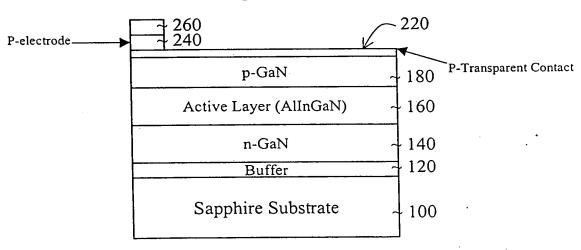


Fig. 3C

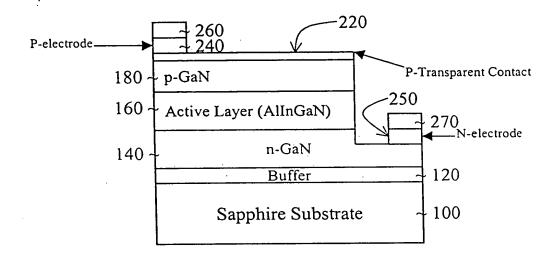


Fig. 3D

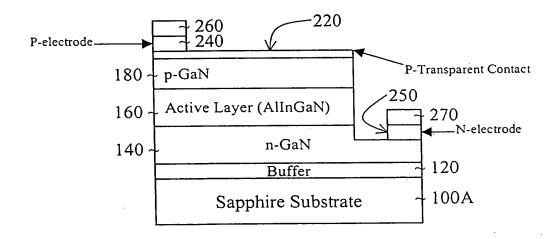


Fig. 3E

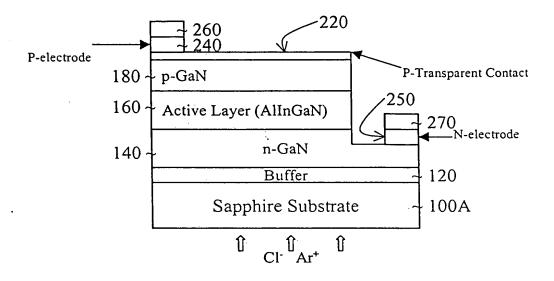


Fig. 3F

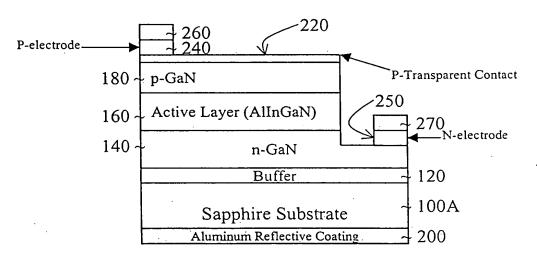


Fig. 4A

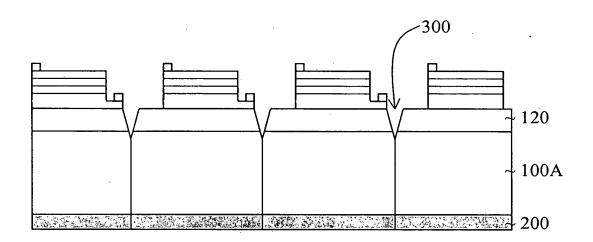


Fig. 4B

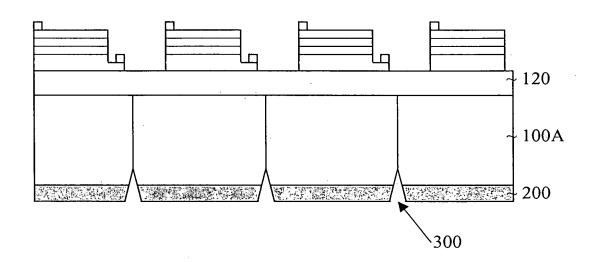
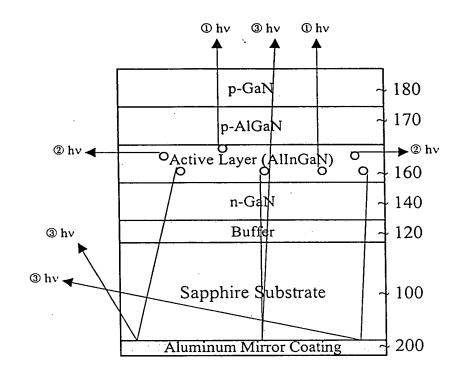


Fig. 5



8 8 Light Output vs. Current Injection 2 9 FIG. 6 Input Current (mA) 20 40 30 -e-Without backside metal -B-With backside metal 20 9 90.0 80.0 70.0 60.0 50.0 40.0 30.0 0.0 20.0 . 10.0 lv (mcd)